



RECYCLED

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DECLARATION OF RODERICK NELSON

1. I am Vice President - Engineering of McCaw Cellular Communications, Inc. ("McCaw"). In this capacity, I am responsible for the technical evolution of McCaw's cellular network and the development of new network services and products. Prior to assuming this position, I worked on cellular radio planning, capital budgeting, procurement and other aspects of engineering for cellular systems.

2. Mandated CMRS-to-CMRS interconnection is unnecessary. In McCaw's experience, wireless carriers will interconnect when it is technically and economically efficient for them to do so. Mandatory interconnection rules could undermine network efficiency and limit McCaw's freedom to innovate.

Efficient Direct Interconnection

3. Aggregating traffic to the extent possible results in more efficient use of resources. Given that the predominance of wireless traffic originates or terminates on the landline network, it is often more efficient for CMRS providers to interconnect through the switching facilities of a local exchange carrier ("LEC").

4. In a number of markets, however, McCaw has found that there is sufficient traffic between its network and the other cellular system to justify direct interconnection with that system. Direct connection provides route redundancy in the case of man-made or natural disasters where the landline network is temporarily disabled. Direct connection also reduces costs by eliminating the need to obtain and pay for LEC switching capability.

5. McCaw decides whether and when to connect directly with another wireless provider by determining the amount of traffic destined for the other provider and using this information to ascertain the number of trunks necessary to support peak busy hour traffic. If it is more economical to route those calls through direct connection rather than through the LEC, McCaw negotiates such an arrangement. Because direct connection is also more economical for the other provider under these circumstances, reaching a mutually acceptable interconnection agreement has not been difficult.

Considerations in Designing Interconnections

6. Designing CMRS-to-CMRS interconnection requires resolution of a wide range of factors that would be difficult to establish by regulation. Among these factors are traffic engineering (how many circuits? is it justified?); type of connection (one-way, two-way); signaling format (SS7/ISUP, MF); signaling information to be exchanged (Feature Group B, D); physical design (copper, fiber, ingress, egress, etc.); administration (who orders? who installs?); costs and cost sharing (who pays when to whom?); operations (who maintains? who responds to outages?); and alternate routing plans. Today, these factors are resolved in private negotiations between the parties.

7. The substantial difficulties that can arise from substituting government mandates for marketplace negotiations can be illustrated by considering just a few of these factors. For instance, would interconnection be required without regard to call volume between the two carriers involved, or should there be a threshold level of traffic before interconnection is required? If so, what would the appropriate level be? Because the costs of interconnection vary from market to market, a traffic volume that justifies direct connections in one city may not in another.

8. Would interconnection rules specify the type of connection and configuration? If so, would "one fit all" or would the FCC sanction a range of possible interconnections? If the latter, would each carrier be required to support the entire range of possible interconnections? If not, which ones would a carrier be required to support? The capabilities of different wireless systems in one city may require a number of interconnection alternatives, each suited to the particular case in which it is used.

9. How would the Commission determine who is responsible for administration and maintenance of interconnection arrangements? Since interconnecting wireless carriers are essentially peers, there is no obvious party to whom administration and operation should fall.

10. All of the elements of an interconnection arrangement have associated costs. The principal costs associated with direct interconnection facilities are (1) lease costs for the

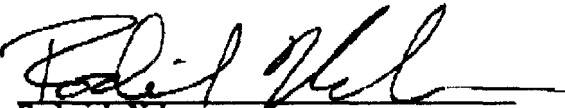
copper or fiber facility; (2) operations, administration and maintenance costs; and (3) port costs on switches to make the connections. These costs can be shared or recovered in any number of ways; probably each of these costs could be recovered using a different formula. Would regulation attempt to impose a single formula for cost sharing and recovery? One formula may make sense for small carriers or when traffic volumes are relatively low, while another may make sense to bigger carriers. For instance, expressing costs per minute might be good for small carriers or relatively low traffic volumes, while sharing recurring costs on a fixed basis might be preferable in the case of larger carriers or higher traffic volumes. In addition to the question of cost structures, cost levels vary greatly across the country. A uniform national price level for interconnection would of necessity be an average and would thus be unfair to carriers in low or high cost areas.

Innovation

11. As noted above, McCaw has taken the initiative to pursue direct CMRS-to-CMRS interconnection arrangements. McCaw has also aggressively pursued new technologies such as SS7 in its interconnection arrangements. Additionally, McCaw is converting its interconnections with LECs to SS7 and will pursue the same with other wireless carriers. Mandated terms, conditions, prices and configurations for interconnections may introduce a significant time lag in McCaw's introduction of advanced technology for interconnection while the technology was studied by regulators and subjected to public comment.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 12, 1994.


Roderick Nelson

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